

DEEPLY REDUCED OXIDATION CATALYST AND ITS USE IN
PREPARING N-(PHOSPHONOMETHYL)GLYCINE COMPOUNDS

Abstract

This invention relates to an improved catalyst,
5 comprising a carbon support having a noble metal at its
surface, for use in catalyzing liquid phase oxidation
reactions, especially in an acidic oxidative environment and
in the presence of solvents, reactants, intermediates, or
products which solubilize noble metals; a process for the
10 preparation of the improved catalyst; a liquid phase
oxidation process using such a catalyst wherein the catalyst
exhibits improved resistance to noble metal leaching,
particularly in acidic oxidative environments and in the
presence of solvents, reactants, intermediates, or products
15 which solubilize noble metals; and a liquid phase oxidation
process in which N-(phosphonomethyl)iminodiacetic acid
(i.e., "PMIDA") or a salt thereof is oxidized to form N-
(phosphonomethyl)glycine (i.e., "glyphosate") or a salt
thereof using such a catalyst wherein the oxidation of the
20 formaldehyde and formic acid by-products into carbon dioxide
and water is increased.